

News Release

FOR IMMEDIATE RELEASE

Contact: Anne Taylor
Lord, Aeck & Sargent
404-253-6710
ataylor@lasarchitect.com
or
Ann Kohut
Kohut Communications Consulting
770-913-9747
annielk@bellsouth.net

National Park Service Gets Long-awaited Destination Center at the Blue Ridge Parkway

LEED Gold-targeted building serves as exhibit of environmentally responsible architecture

ASHEVILLE, N.C., Feb. 6, 2008 – After more than 20 years of planning, Blue Ridge Parkway has a new destination center to orient visitors to the history, culture and resources of the Parkway and its surrounding region. At the same time, in keeping with the National Park Service's sustainable design initiative, the new Blue Ridge Parkway Destination Center serves as an exhibit of sustainable, environmentally responsible architecture.

Designed by the architecture firm Lord, Aeck & Sargent and targeting LEED Gold certification by the U.S. Green Building Council, the \$9.8 million Blue Ridge Parkway Destination Center features a host of sustainable design strategies, including an innovative passive solar system to heat the building, daylighting to minimize use of electrical lights and a planted roof to help integrate the building into the site.

Located adjacent to the Parkway headquarters at Hemphill Knob near Asheville, the Parkway's greatest point of access, the two-story, 12,000-square-foot Destination Center is the

- more -

Parkway's only visitor contact station that is open year round. According to Gary Johnson, chief of resource planning for the Parkway, the facility is the result of a collaboration among the Blue Ridge Parkway, the Southeast Region of the National Park Service, the Denver Service Center, the NPS' planning, design and construction project management office, many stakeholders and Mr. Charles Taylor, a former North Carolina congressman. Mr. Taylor championed the Destination Center for the park as a means to connect visitors with the cultural, recreational and historic attractions in the 17-county region of western North Carolina and western Virginia, through which the Parkway traverses.

Architectural intent

"The Destination Center was designed to fit in with the site, offering visitors both the vista of the mountains that they would expect from the Blue Ridge Parkway, as well as tree house-like intimacy with the site that makes the experience unique. The building is also designed to demonstrate and showcase certain sustainable technologies," said Joshua Gassman, RA, LEED AP, who served as Lord, Aeck & Sargent's project manager and project architect.

"So we designed the arrival side of the building using wood siding and sloped roofs to relate to the mountains as well as to complement the Parkway's traditional style. Building materials and forms were chosen to create a contemporary interpretation of the Southern Appalachian vernacular," Gassman continued, noting that the design team selected young growth cedar siding, concrete walls with high fly ash¹ content, a curtain wall with recycled aluminum content and glued laminated wood trusses² for the building's main exhibit hall.

¹Fly ash is a waste product used to substitute for cement.

²The glued laminated wood trusses allow for large structural members to be made using many smaller pieces of wood. This reduces the need for harvesting of larger, older trees.

“And on the side of the building that faces the Parkway, the architecture emphasizes the more technical aspects of the building’s sustainable design strategies, the driver being energy conservation,” Gassman said. “Since the Asheville climate requires buildings be heated during most of the year, we chose to implement passive solar collection and daylighting as our primary energy conservation measures.”

Proper siting is key

Proper siting of the building was important to optimize the implementation of passive solar strategies, to create vista views and tree house intimacy, as well as for the building to be seen without dominating its site.

“In examining the site, we noted that the topography drops down, so we designed the building to be cut into the hillside. Visitors enter the building on the second floor, and it’s like being in a tree house in the middle of the woods. It’s an experience that’s unavailable when driving along the Parkway,” Gassman said.

“We also took care to site the building with the dominant façade facing south. But because of the steep site and the existing entrance road, the building had to be 30 degrees off of south. In order to maximize southern exposure, which is ideal for the success of solar strategies, we broke the southern façade into short pieces and rotated them to face due south.”

Trombe walls

The most innovative strategy to heat the building in the winter and help cool it in the summer is the use of vented Trombe walls on the building’s south façade. A Trombe wall uses the sun to heat a small air space between a glass wall and a heavy-mass wall such as concrete. The trapped heat is then transferred into the building, either indirectly through the concrete or, as is the case with the Destination Center, directly through vents. To study the walls, Lord, Aeck &

Sargent partnered with Pennsylvania State University's Applied Research Laboratory (ARL) to construct a computational fluid dynamics (CFD) model, which is a computer model that studies the movement of fluid flow – air in this case – and heat transfer.

“Traditionally, CFD has been used in the aerospace and defense industries, but more recently it's been used in high-tech architectural applications. We feel that its potential for modeling passive buildings is largely untapped,” said Vikram Sami, LEED AP, a member of Lord, Aeck & Sargent's design team who led the collaboration with the ARL. “The Destination Center's Trombe walls move air heated by the sun into the facility's exhibit hall, which is the main focus of the building. Since the Trombe walls face due south, they're fully exposed to the sun in the winter when maximum heating is desired. The walls are shaded in the summer by a roof overhang to prevent overheating of the building.”

Other sustainable design strategies

Among the Destination Center's other sustainable design strategies and products are:

- An HVAC system that uses an energy recovery unit to transfer heat from air exhausted out of the building to air entering the building in the winter. In the summer, the energy recovery unit pulls moisture out of the air that enters the building. This technology will result in significant energy use reduction throughout the life of the building.
- Hydronic radiant heated flooring
- A 10,000-square-foot green roof, 100 percent of which is planted with native, drought tolerant plants
- Photo sensors that turn on the lights only when there is not enough natural light
- Occupancy sensors that ensure lights are turned off when no one is occupying the offices in the Destination Center
- Operable windows in the offices and the exhibit hall

- A storm water runoff system that captures rainwater in two different ways. The first is a cistern to capture water for use on site, and the second is directing water from the parking lots into a bioswale from which it is then filtered and seeps into the groundwater.
- Zero VOC paint and sealants

What visitors find inside the building

The main focus of the Destination Center is the exhibit hall, a long, rectangular room with interactive exhibits that interpret the construction of the Blue Ridge Parkway and the natural and human history of the region through which the Parkway passes. Running down the center of the room are three island exhibits, each dedicated to one of the Parkway's three primary interpretive stories. There is also an orientation area integrated with the exhibits, where kiosks connected to the Internet allow visitors to make reservations, buy tickets for local attractions and learn more about the region.

Other areas include:

- A 70-seat theater with a new high-definition film that takes visitors on a journey down the Parkway, with stops to meet some of the many people – a potter, a glass blower, a fiddle maker, a member of the Cherokee tribe, for example – whom visitors might encounter in the region
- Offices for staff
- A gift shop and bookstore
- A classroom for local and regional educational programs run by the National Park Service. Equipped for distance learning, it can connect to other NPS educational programs and to local area schools.

The project team

The Blue Ridge Parkway Destination Center project team was comprised of:

- Blue Ridge Parkway, owner, the Southeast Region of the National Park Service, and the Denver Service Center, the NPS' planning, design and construction management office
- Lord, Aeck & Sargent, Inc. (Atlanta), architect
- Van Sickle & Roller Ltd. (Medford, N.J.), exhibit designer
- The Jaeger Co. (Athens, Ga.), landscape architect
- Rocky Mountain Institute Built Environment Team (formerly the ENSAR Group) (Boulder, Colo.), daylight modeling
- Newcomb & Boyd (Atlanta), MEP/FP engineer
- Palmer Engineering Co., Inc. (Tucker, Ga.), structural engineer
- Long Engineering, Inc. (Atlanta), civil engineer
- Waveguide Consulting (Atlanta), theater AV and acoustical consultant
- Applied Research Laboratory at The Pennsylvania State University (State College, Penn.), computational fluid dynamic modeling
- Perry Bartsch Jr. Construction Co. (Asheville, N.C.), general contractor

About Lord, Aeck & Sargent

Lord, Aeck & Sargent is an award-winning architectural firm serving clients in scientific, academic, historic preservation, arts and cultural, and multi-family housing and mixed-use markets. The firm's core values are responsive design, technological expertise and exceptional service. In 2003, The Construction Specifications Institute awarded Lord, Aeck & Sargent its Environmental Sensitivity Award for showing exceptional devotion to the use of sustainable and environmentally friendly materials, and for striving to create functional, sensitive and healthy buildings for clients. In 2007, Lord, Aeck & Sargent was one of the first architecture firms to adopt The 2030 Challenge, an initiative whose ultimate goal is the design of carbon-neutral buildings, or buildings that use no fossil-fuel greenhouse gas-emitting energy to operate, by the year 2030. Lord, Aeck & Sargent has offices in Ann Arbor, Michigan; Atlanta; and Chapel Hill, North Carolina. For more information, visit the firm at www.lordaecksargent.com.

###